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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/717,273

Applicant(s)

WAN ET AL.

Examiner

Juan C. Ochoa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/23/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments filed on 7/23/07 have been fully considered. Claims 1–30 are presented for examination.

Claim Objections

2. Claim 1 line 4 refers to “the faces”, would be better as “faces” to avoid any possible antecedent issues.
3. Claim 11 line 4 refers to “the faces”, would be better as “faces” to avoid any possible antecedent issues.
4. Claim 21 line 4 refers to “the faces”, would be better as “faces” to avoid any possible antecedent issues.
5. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1–8, 11–18, and 21–28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. As to claim 1, lines 8-12 recite “traversing the internal body topology to identify a second element in a second wall side of the graphic model; measuring the distance between the first element and the second element; and storing a wall thickness, the wall

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thickness corresponding to the measured distance" After the first element is selected, the internal body can be traversed at varying angles. So the measured distance depends upon the angle taken to traverse the body. While a distance between the first element and second element is measured, the step of identifying a second element is not based upon a specific direction relative to the first element. Therefore, while the distance between the first element and second element is measured, that may not equate to a thickness of the wall. The claim only requires identifying a second element in a second wall, which may or may not correspond to the actual thickness of the wall. This renders the claim indefinite because the measured distance varies based upon an identified position of the second element.

9. As to claims 11, 21, they contain the same "measured distance depends upon the angle taken to traverse the body" deficiency as set forth above.

10. Dependent claims inherit the defect of the claim from which they depend.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 1–8, 11–18, and 21–28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

13. Specifically, claims 1, 11, and 21 do not produce a useful, concrete and tangible result.

14. As to claim 1, lines 8-12 recite "traversing the internal body topology to identify a second element in a second wall side of the graphic model; measuring the distance between the first element and the second element; and storing a wall thickness, the wall thickness corresponding to the measured distance" After the first element is selected, the internal body can be traversed at varying angles. So the measured distance depends upon the angle taken to traverse the body. While a distance between the first element and second element is measured, the step of identifying a second element is not based upon a specific direction relative to the first element. Therefore, while the distance between the first element and second element is measured, that may not equate to a thickness of the wall. The claim only requires identifying a second element in a second wall, which may or may not correspond to the actual thickness of the wall. This raises lack of concreteness in the claim because the measured distance varies based upon an identified position of the second element.

15. As to claims 11, 21, they contain the same "measured distance depends upon the angle taken to traverse the body" deficiency as set forth above.

16. Dependent claims inherit the defect of the claim from which they depend.

Response to Arguments

17. Applicant's arguments filed on 7/23/07 have been fully considered, but the arguments are not persuasive for the 35 USC 112 2nd paragraph rejection.

18. Regarding the drawing objections, the amendment corrected all deficiencies and the objections are withdrawn.

19. Regarding the rejections under 101, while the amendment corrected some deficiencies, claims remain defective.

20. Regarding the rejections under 101 of claims 21 and 29 not limited to "a computer program product tangibly embodied in a machine-readable medium", the amendment corrected all deficiencies and these rejections are withdrawn. Claims 21–30 are limited to "a machine usable medium", which falls within a stature category of invention. "Signal bearing medium" and "Transmission type mediums such as digital and analog communication links" are excluded in light of the amended Specification.

21. Regarding the rejections under 112 second paragraph, the amendment to the claims corrected some deficiencies.

22. Regarding the rejections under 112 second paragraph of claims 21 and 29, the amendment corrected the deficiencies and the rejections are withdrawn.

23. Regarding the rejections under 112 second paragraph of claims 1–8, 11–18, and 21–28, the Applicant argues, (see page 9, 5th paragraph to page 11, 3rd paragraph), specifically "the Examiner states, without basis, that the measured distance depends up the angle taken to traverse the body. The Examiner appears to believe that the claim requires measuring a vector at some random angle between the walls. It does not; the claim requires measuring a distance between a first element and a second element, and storing a wall thickness corresponding to the measured distance. This is clearly described in the specification, and clearly and definitely described in the claims. Claim 1 reflects what the Applicants regard as the invention. The Examiner's rejection appears to be a complaint that the process claimed - as misinterpreted by the Examiner may not

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result in what the Examiner believes to be an optimal result. Independent claims 1, 11, and 21 each clearly describe what the Applicants regard as the invention; including identifying a first element, traversing the internal body topology to identify a second element, measuring the distance between the first element and the second element, and storing a wall thickness corresponding to the measured distance. Dependent claims describe different techniques for traversing the body and identifying the second element, but does not change the measuring aspect, which measures the distance between the first and second elements, however identified, as does not rely at all on the angle taken as alleged by the Examiner, as the measured distance between the two elements is constant once the second element has been identified" The Applicant has not responded specifically to the examiner's analysis, which concludes, "the measured distance will depend upon the angle taken to traverse the body." Thus, the technique does not result in a single result. While a distance between the first element and second element is measured, the step of identifying a second element is not based upon a specific direction relative to the first element. Therefore, while the distance between the first element and second element is measured, that may not equate to a thickness of the wall. The claim only requires identifying a second element in a second wall, which may or may not correspond to the actual thickness of the wall. This renders the claim indefinite because the measured distance varies based upon an identified position of the second element. This also raises lack of concreteness in the claim because the measured distance varies based upon an identified position of the second element. With respect to the Applicant utilizing the specification to limit the claim, this is contrary

MPEP 2111 which states, "During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." The Federal Circuit's en banc decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the "broadest reasonable interpretation" standard. The specification is used as a dictionary to interpret the claims, but may not be used to further narrow the claims, as suggested by the Applicant's arguments. In other words, Examiner does not see these features expressed in the claims. Examiner is not allowed to bring limitations set forth in the description into the claims. Anyway, Pre-Grant publication 20040186604, Onodera et al., (see PTO-892 Notice of Reference Cited dated 4/19/07), teaches in an analytical shell-model producing apparatus (see page 1, col. 2, paragraph [0008], lines 1-4), traversing the internal body topology to identify a second element in a second wall side of the graphic model; measuring the distance between the first element and the second element; and storing a wall thickness, the wall thickness corresponding to the measured distance (see "a value of plate thickness of the each target internal-surface model is calculated from the face-to-face distance between the surfaces in the pair-surface data" in page 3, col. 1, paragraph [0027], lines 9-11).

Conclusion

24. Any indication of allowability of the claims not rejected on prior art is being held in abeyance pending the manner in which applicant amends or responds to the above rejections.

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

26. Pre-Grant publication 20040186604, Onodera et al., (see PTO-892 Notice of Reference Cited dated 4/19/07), teaches an analytical shell-model producing apparatus (see page 1, col. 2, paragraph [0008], lines 1-4), which in direction of a normal line (see page 1, col. 2, paragraph [0008], lines 23-24) calculates the plate thickness on each of the internal-surface models produced (see page 2, col. 1, 1st paragraph, lines 2-10).

27. Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan C. Ochoa whose telephone number is (571) 272-2625. The examiner can normally be reached on 7:30AM - 4:00 PM.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

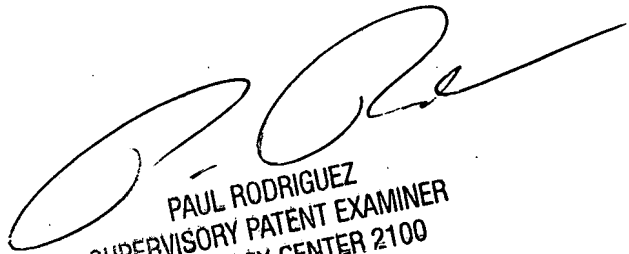
30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JO

10/9/07



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